

Goal 2: Protecting America's Waters			
Objective 2: Objective 2.2: Protect and Restore Watersheds and Aquatic Ecosystems			
Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Leah Ettema	Basin Commission Contact(s): J. Bransky	PRC: 202B06
Project Description: Enhanced Dissolved Oxygen Monitoring for Sturgeon			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Enhanced dissolved oxygen monitoring in areas of importance for Atlantic sturgeon		DRBC will deploy dissolved oxygen sensors in areas where juvenile Atlantic sturgeon are known to congregate (Marcus Hook). Sensor deployment will be designed to collect data at multiple locations throughout the water column. Deployment will occur in summer when DO conditions are at their lowest.	

Commented [EL1]: Please clarify purpose of monitoring. Eg. is this determining if dissolved oxygen conditions at Marcus Hook support sturgeon populations?

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Work Plan Component/Program: II. DRBC Criteria-Based Programs	EPA Contact(s): Leah Ettema, Katie Bentley	Basin Commission Contact(s): J. Yagecic	PRC: 202B06
Work years: 2023:			
Project Description: Estuary bacteria monitoring			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Estuary bacteria monitoring.		DRBC will perform bacteria monitoring in Zones 3 and upper 4 in the Delaware Estuary. DRBC will continue the shore based monitoring begun in 2019. In addition to analysis of E. Coli, Fecal Coliform, and Enterococcus, DRBC will perform limited monitoring to help quantify the proportion of bacteria originating from human sources verses animal sources.	

Commented [EL2]: Please clarify purpose of monitoring. Is it to conduct bacteria 305(b) recreation use assessments? (Or, is there shellfish harvesting use to assess?) Update criteria?

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Dana Hales, Joel Blanco	Basin Commission Contact(s): T. Amidon	PRC: 202B06
Project Description: PCBs - Ongoing PMP Management			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Implementation of Stage 1 & 2 PCB TMDLs (Zones 2-6)		<ul style="list-style-type: none"> Ongoing Point Source Data Review and Assessment. Ongoing Pollutant Minimization Plan review and management. Readily available data for action level option evaluation. By November 30, 2023 DRBC will provide a list of PMPs reviewed by DRBC and by the states, plus a slide set on PMP activities during 2023. 	

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Katie Bentley, K.L. Lai	Basin Commission Contact(s): N. Suk	PRC: 202B06
Project Description: Enhanced Aquatic Life Designated Use			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Development of ammonia nitrogen wasteload allocations for higher DO in urban estuary		<ul style="list-style-type: none"> Coordinate co-regulators workgroup meetings Finalize Analysis of Attainability 	

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023:	EPA Contact(s): Dana Hales, Joel Blanco	Basin Commission Contact(s): N. Suk	PRC: 202B06
Project Description: Stage 2 PCB TMDLs			
Environmental Outcomes	Measures	Outputs for FY 2023 (Commitments)	Status/Comment
Finalization of Stage 2 PCB TMDLs		<ul style="list-style-type: none"> Provide technical support to EPA in establishment of Stage 2 PCB TMDLs 	

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Work Plan Component/Program: IV. Assessment & Management	EPA Contact(s): K.L. Lai	Basin Commission Contact(s): J. Yagecic	PRC: 202B06
Work years: 2023			
Project Description PCB Monitoring			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Updated data for fish consumption advisories in Delaware River by Basin States		PCB, Dioxins/Furans, OC pesticides, Total Mercury, and Methylmercury analysis of fish tissue samples from 4 sites in non-tidal river and 5 sites in the estuary, collected by basin state agency staff, to provide readily available data in WQX.	

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Leah Ettema	Basin Commission Contact(s): J. Bransky	PRC: 202B06
Project Description: Biological Monitoring – State data reconciliation			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Basin wide macroinvertebrate index for tributaries		<ul style="list-style-type: none">DRBC will attempt to develop a basin wide macroinvertebrate IBI similar to the Chessie IBI. This will allow DRBC to incorporate macroinvertebrate data collected by the basin states to monitor trends in water quality throughout the basin.	

Commented [EL4]: Please clarify the expected output for CY 2023 – is it a complete IBI, draft IBI, preliminary analysis? (EPA has no preference)

Commented [EL3]: EPA supports this development. But, does the current DRBC bioassessment method used to place waters in 305 category 1, 2, and 3 not allow for identification of trends in water quality? Please explain further why a basin wide macroinvertebrate IBI is needed. (Eg.it would allow trends to be analyzed at a watershed scale, rather than site specific scale).

And, for environmental outcomes, is the goal only trend analysis, or is it also to support aquatic life category 5 determinations? What will the index be used for?

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Leah Ettema	Basin Commission Contact(s): J. Yagecic	PRC: 202B06
Project Description: 1,4-Dioxane trackdown follow-up			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Monitoring and trackdown of 1,4-Dioxane.		Under this project, DRBC will follow up on 1,4-Dioxane monitoring initiated in 2020. Monitoring will be performed to assess improvement where sources have been eliminated and continue to attempt to identify other sources.	

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Leah Ettema	Basin Commission Contact(s): J. Yagecic	PRC: 202B06
Project Description: Boat Run monitoring program			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Assessment of Bacteria, eutrophication, metals, and conventional parameters (i.e., nutrients, dissolved oxygen, chlorides).		<p>Management and execution of an expanded Boat Run monitoring program including continuation of year-round monitoring for nutrient and nutrient-related parameters. All data readily available in STORET/WQX.</p> <p>Monitoring composed of:</p> <ul style="list-style-type: none"> • 22 sample locations in the Delaware River and Bay between River Miles 6.5 and 131; • Analysis of routine, bacterial, nutrient, algal, sodium and biotic ligand model parameter groups; • Limited metals; • Monitoring is performed monthly for routine, nutrient, and algal parameters from April through October. <p>Upon upload of all data to STORET/WQX, links to a pre-canned query for the resultant data set will be provided. All 2021 data uploaded by February 28, 2023 and pre-canned queries posted on DRBC web page by March 15, 2023.</p>	

Commented [EL5]: Does this mean 305(b) assessment?

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Work Plan Component/Program: II. DRBC Criteria-Based Programs Work years: 2023	EPA Contact(s): Leah Ettema, Katie Bentley	Basin Commission Contact(s): E. Panuccio	PRC: 202B06
Project Description: Enhanced Non-tidal Chloride Monitoring			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Assessment of non-tidal Delaware River tributaries' ions, TDS, and salinity to identify potential problem areas and characterize ionic composition on a site-specific basis		<ul style="list-style-type: none"> Monthly sample collection started in May 2021 (27 non-tidal tributary sites in SPW). The 2023 work will start from January and end in April 2023 to complete 2 full years of monthly monitoring. Analytical parameters include TDS, chloride, sodium, magnesium, calcium, and other ions (specific conductance data collected via loggers and/or water quality meters). Upon upload of all data to STORET/WQX, links to a pre-canned query for the resultant data set will be provided. All 2023 data uploaded by September 2023 and pre-canned queries posted on DRBC web page by October, 15, 2023. 	

Commented [EL6]: Does this mean 305(b) assessment? If not, consider rewording.

Commented [EL7]: How is a potential problem area determined? Or, is this work seeking to define that? (ie. establishing a baseline and/or potentially establishing assessment thresholds (or water quality criteria)?)

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Work Plan Component/Program: IV. Assessment & Management	EPA Contact(s): Leah Ettema, Katie Bentley	Basin Commission Contact(s): E. Panuccio	PRC: 202B06
Work years: 2023:			
Project Description: Special Protection Waters Monitoring Program			
Environmental Outcomes	Measures	Outputs for FY 2023 (Commitments)	Status/Comment
Assess effectiveness of Special Protection Waters program via measurable change assessments		<ul style="list-style-type: none"> Continuation of SPW monitoring program last conducted in 2017 3-year monitoring assessment period to compare to baseline conditions (baseline conditions defined for 85 locations). For each 3-year monitoring period, 15-20 sites will be selected. Monitor during the May – Sept period for nutrients, conventional parameters, and field measurements Data will be uploaded to WQX by December 15, 2023. 	

Commented [EL8]: I am not familiar with this. Is there already a process for conducting a 'measurable change assessment', and does this monitoring go into that assessment? If so, Where are the results of these assessments shared? (It is not stated in the output). Or, is this monitoring being used to develop a 'measurable change assessment' methodology?

Commented [EL9]: Will temperature data be collected to help establish temp means (define ambient stream temperature) for zones 1A through 1E?

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Work Plan Component/Program: IV. Assessment & Management	EPA Contact(s): Leah Ettema	Basin Commission Contact(s): J. Bransky	PRC: 202B06
Work years: 2023:			
Project Description: Non-tidal Delaware River Mussel Survey			
Environmental Outcomes	Measures	Outputs for FY 2023 (Commitments)	Status/Comment
Assess mussel community composition in the non-tidal Delaware River, with emphasis above and below the Lehigh River confluence		<ul style="list-style-type: none"> Repeat of 2014 mussel survey of non-tidal Delaware River (see report here: [HYPERLINK "https://www.nj.gov/drbc/library/documents/mussels-rpt_lower-del_dec2014.pdf"]) May require outside help 	

Commented [EL10]: The EPA R3 Field Service Branch (and dive team) may be able to assist with field work (collection, rather than ID of mussels).

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Work Plan Component/Program: II	EPA Contact(s):	Basin Commission Contact(s):	PRC: 202B06
Work years: 2023	K.L. Lai	E. Panuccio	
Project Description: Cyanotoxin Monitoring using SPATT (Monitoring Initiative)			
Environmental Outcomes	Measures	Outputs for CY 2023 (Commitments)	Status/Comment
Assess presence, persistence, and prevalence of cyanotoxins in the mainstem Delaware River		DRBC will deploy solid phase adsorption toxin testing (SPATT) bags and have them analyzed for microcystins and cylindrospermopsin. DNREC will analyze suite of 3 toxins (microcystins/nodularins, anatoxin-a, and cylindrospermopsin) for \$145.	

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Work Plan Component/Program: IV. Assessment & Management	EPA Contact(s): Kelly Somers	Basin Commission Contact(s): E. Panuccio	PRC: 202B06
Work years: 2023:			
Project Description: Management - Grant and infrastructure management & QA			
Environmental Outcomes	Measures	Outputs for FY 2023 (Commitments)	Status/Comment
Effective management of 106 Resources		<ul style="list-style-type: none"> 106 grant application and reporting. <p>Outputs include successful completion of:</p> <ul style="list-style-type: none"> Mid-year joint evaluation call; Overall grant management; End of year comments. <p>Quality Assurance</p> <ul style="list-style-type: none"> DRBC will review their Quality Management Plan (QMP) and all Quality Assurance Project Plans (QAPPs) and/or Quality Assurance Program Plans (QAPrPs) associated with this grant annually and make updates as needed. In addition, DRBC will re-submit these QMPs, QAPPs, and QAPrPs to EPA for review and approval at a minimum of every five years, or more frequently if substantial changes are made. 	